

## CLAIMS

1. A print head comprising a print valve and a print  
5 valve control means, the print valve control means  
comprising a first data input line to receive print data;  
memory means to store the received print data; processing  
means to process the stored print data, wherein the  
processing means, in use,  
10 (a) divides the print data into a plurality of sub-  
elements;  
(b) writes each print data sub-element to respective  
memory means locations within the memory means;  
(c) sequentially reads each print data sub-element  
15 from the memory means; and  
(d) activates the print valve in accordance with the  
print data sub-elements.
2. A print head according to claim 1, wherein the  
20 respective memory means locations are configured such  
that, in use, each memory sub-element is read from the  
memory means a substantially constant time period after  
the preceding memory sub-element.
- 25 3. A print head according to claim 2, wherein, in use,  
the processor changes the value of the time period.
4. A print head according to any preceding claim,  
wherein, in use, the print head can be rotated to a first  
30 orientation.

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5. A print head according to claim 4, wherein, in use, the processor changes the value of the time period so that a printed image is printed at a second orientation.

5 6. A print head according to any preceding claim, wherein the memory means locations are over-written by the processor following the sequential print data read.

7. A method of printing an image with a print head, the  
10 method comprising the steps of:

(a) rotating the print head to a desired angle from the vertical;

(b) generating a raster signal representing the image to be printed;

15 (c) dividing the raster signal into a plurality of sub-elements;

(d) writing each raster signal sub-element into respective memory means locations within a memory means;

(e) sequentially reading each raster signal sub-  
20 element from the memory means; and

(f) printing each raster signal sub-element from a print head, the printed image having a substantially vertical orientation.

25 8. A method of printing an image, the method comprising the steps of:

(a) generating print data representing the image to be printed;

(b) dividing the print data into a plurality of sub-  
30 elements;

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(c) writing each print data sub-element into respective memory means locations;

(d) sequentially reading the memory means; and

(e) printing an image by activating a print valve in  
5 accordance with print data sub-element read from the memory means.

9 A method according to claim 8, wherein during step  
(d) the respective memory means locations are configured  
10 such that each memory sub-element is read from the memory means a substantially constant period of time after the preceding memory sub-element.

10. A method according to claim 9, wherein step (d)  
15 further comprises changing the value of the time period.

11. A method according to any of claims 8 to 10, wherein the method comprises the further step of  
(f) rotating the print head first orientation; step  
20 (f) being performed before step (e).

12. A print head according to claim 11, wherein step (d) further comprises changing the value of the time period so that a printed image is printed at a second orientation.  
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13. A method according to any of claims 8 to 12, wherein the method comprises the further step of  
(g) over-writing the memory means locations following the reading of the sequential print data.

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